

More to Balance than Meets the Eye

By: Randy Grills

www.randygrills.com

Balance is the function of three components that cooperate closely with each other in an interdependent manner. The inner ear controls the sensations from hearing, sight, and movement -- and combines them into the sense of balance. These three major components regulating our balance is the vestibular system in your inner ears. The vestibular system consists of the semicircular canals and the little bones of your inner ears which continuously sense gravity for both straight and curved movement which generate and relay balance signals to the brain.

The second component of the balance system is our eyes. The eyes see both position in space and movement. The inner ear works together with your eyes in what doctors call the vestibulo-ocular reflex. When you walk, your head moves up and down with your body movement. This would make everything you see blurry unless you were absolutely still. However, your vestibulo-ocular reflex normally keeps your eyes clearly focused on your surroundings by instantly and continuously changing your eye position as you move. You think of nothing it's totally subconscious and automatic.

The third component of the balance system is the one we study most in golf through the dynamics of the golf swing -- the body itself or kinesthetic motion. The body uses special pressure sensors in the muscles, tendons and joints to sense gravity and joint position. Most of these sensors are in the feet and leg joints. So, even though we use varied positions to affect balance in the golf swing, unless folks have a particular problem with their eyes -- any spatial orientation regarding sight relative to setup in the golf swing should be corrected (adjusted) by the inner ear to maintain proper motion orientation. Although I think it makes sense to align the eyes as one does with feet, hips, and shoulders -- I don't think it's crucial. I think orientation has more to do with the weight of the head and its position, relative to the rest of the body.

In terms of "control" or mechanics, the eyes and sight [in my opinion] in a golf motion involve no conscious involvement. Assuming a golfer has no inner ear reflex issues, the golf motion is then a conscious / subconscious function of kinesiology or the third leg of the balance triumvirate. Balance, as it relates to pressure sensors and positions of the moving upper body relative to the lower body -- the motion of hips relative to spine angle in a balance, counter balance flow that produces speed and power.

However, golfers who wear glasses or otherwise have eyesight issues would be well advised to be wearing those glasses to play and practice and that their prescription is current. The golfer not wearing his/her glasses or using a poor prescription will most certainly have spatial orientation issues that may not be successfully overcome by the inner ear. I had a student who was in the midst of changing prescriptions. He's a good 6 handicap player, but with "temporary" glasses he played like a 16 handicapper -- we couldn't do anything productive until he got the prescription right.

It would be logical that the best athletes in the world have great eyesight. Tiger Woods has had Lasik surgery giving him exceptional peripheral vision and depth perception and I would guess his inner ear reflexes are as good as it gets. Top Gun pilots have great vision - test pilot, Chuck Yeager had exceptional vision and exceptional skills in the cockpit. Hockey great, Bobby Orr told me he had great peripheral vision and could see the whole rink - knowing where players were and could be at any given time (he's also a 7 handicap golfer). I'm sure many great athletes in various sports would display the same aptitude. Does the same hold true for you and your game? Maybe it's time to visit your optometrist.

